

# Casa Systems Downstream DS8X96 CCAP Module



## Feature Highlights

### Converged Cable Access Platform (CCAP) Functionality

DS8X96 provides the scale and software functionality required to deliver Full CCAP functionality to its C10G/C100G CMTS platform by enabling MSOs to immediately deploy DOCSIS, IPTV and digital video over a single RF port and greatly increasing channel density over existing CMTS modules on the market

### Superior Channel Density

Industry leading 128 channels per port including 36 unique channels per port of narrowcast and 96 channels of broadcast for a total of 1024 channels per module

### Channel Bonding

Delivers 256 variable size DOCSIS channels that can be used for bonding

### Cost Effectiveness

Industries lowest cost per DOCSIS 3.0 channel for this class of product, delivering an economical solution for high bandwidth multimedia applications

## Overview

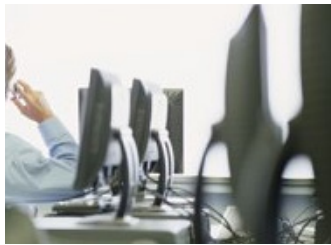
Casa Systems' downstream DS8x96 module delivers unprecedented density and performance. The DS8x96 module delivers an industry leading 128 channels per port including 36 unique channels per port of narrowcast and 96 channels of broadcast for a total of 1024 channels per module. Designed to be deployed today in the carrier class C10G/C100G Cable Modem Termination System (CMTS) platform, the platform supports up to eleven primary DS8x96 modules and one protection module, yielding a total combination of over 11,000 narrowcast and broadcast channels supported in the downstream direction.

The DS8x96 DOCSIS module is a complete DOCSIS downstream unit that includes DOCSIS packet processing, QoS, DOCSIS downstream MAC, PHY, and RF up-conversion. Each downstream QAM channel can be configured to support DOCSIS or MPEG/DVB-C video.



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## DS8x96 QAM Module

Number of Channels	1024 channels, 128 channels/port, 48 narrowcast/port, 36 DOCSIS/port
QAM modulation	Annex A, B or C
QAM constellations	64, 128, & 256 QAM
Data rates (DOCSIS)	27 Mbps @ 64 QAM 38 Mbps @ 256 QAM
Data rates (EuroDOCSIS)	36 Mbps @ 64 QAM 51 Mbps @ 256 QAM
Frequency range (center)	48 to 1000 MHz
Frequency step size	1 Hz
Channel width	6 to 8 MHz (tunable)
Maximum output power (sum total of all channels)	60 dBmV @ 1 ch/port 59 dBmV @ 2 ch/port 58 dBmV @ 4+ ch/port
Output step size	0.1 dB
Output accuracy	± 5ppm
Return loss	50 ~ 870 MHz, 14 dB 870 ~ 1002 MHz 10 dB
Modulation error rate	43 dB (equalized)
Wideband noise	-73 dBc

## Channel Bonding

The DS8x96 has 256 variable size DOCSIS channels that can be used for bonding. These bonded channels can be grouped together, delivering numerous channel configurations and maximum flexibility.

## Converged Cable Access Platform (CCAP) Functionality

The CCAP specification calls for improved density and increased functionality and the DS8x96 delivers. The DS8x96 module brings Full CCAP functionality to its C10G/C100G CMTS platform by enabling MSOs to immediately deploy DOCSIS, IPTV and digital video over a single RF port and greatly increasing channel density over existing CMTS modules on the market.

## Investment Protection

For those MSO's who aren't ready to deploy CCAP right now, the DS8x96 module still delivers superior channel density at a lower cost than its competitors.

When ready, existing C10G/C100G customers can seamlessly migrate to CCAP by adding the DS8x96 module without changing any other hardware on the platform. This protects their initial investment in Casa Systems while providing additional capex and opex savings moving forward.



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